U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

NRCS-ENG-530E
7-95

INPLACE MOISTURE-DENSITY DETERMINATION: CALIBRATED CYLINDER METHOD
Fine-Grained Soils — Less than 5% + No. 4 Sieve

Location _____ Site No. _____

Watershed _____ Subwatershed _____

Contract No. _____ Contractor _____

Tested by _____ Computed by _____ Checked by

Test No.	Date	Location of test			Borrow source, location, and depth	Material classification
		Station	℄ offset	Elevation		

Test No.	Date	Spec. requirements (%)		Test results (%)		Curve No.	Wet density check	
		Moisture range	Compac-tion	Moisture	Compac-tion		1-Point	Curve

Remarks _____

Volume Determination	Test No.			
1. Volume of cylinder (volume of hole) _____				

Moisture Determination				
Speedy moisture meter				
2. Dial reading _____				
3. Moisture content (calibration curve) _____ (%)				
Sample tested using: quick dry ☐ **alcohol** ☐ **oven** ☐	Container No.			
4. Weight of moist sample plus container _____				
5. Weight of dry sample plus container _____				
6. Weight of moisture = (4) − (5) _____				
7. Weight of container _____				
8. Weight of dry sample = (5) − (7) _____				
9. Moisture content = ((6) + (8)) 100 _____ (%)				
10. Correction for ignition _____ (%)				
11. Corrected moisture content = (9) − (10) _____ (%)				

Density Determination				
12. Weight of moist sample plus cylinder _____				
13. Weight of cylinder _____				
14. Weight of moist sample = (12) − (13) _____				
15. Weight of dry sample = [(14) + (100 + (11))] 100 _____				
16. Fill dry density = (15) + (1) _____				
17. Maximum dry density _____				
18. Ratio[1] = ((16) + (17)) 100 _____ (%)				

[1] Patio of fill dry density to maximum dry density.

Indicate Weight and Volume Units Used in Test